



Course specification

University/Academy: Damnhour

Faculty/Institute: Science

Department Zoology

1. course Data:		
Course code: Zool 324	Course title: Ecology	Academic year:2009/2010 level:3 rd year /2 nd term
Specialization: Zoology&chemestery	No. of instructional units: lecture <input type="text" value="2"/> practical <input type="text" value="3"/>	

2. course Aim	-Animal ecology is where students learn the relationship between living organisms (animals) and their physical environment together with all other living organisms within it. The students also learn the structure as well as the conditions that affect this ecosystem both external and internal
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3. Intended learning outcome	
a) Knowledge and understanding	A1: Identify the characteristics of the ecosystem including structure, organism's interactions, and movement of energy and cycling of nutrients. A2: Define, classify and studying different biomes A3: Recognise and studying the adaptation of animals to their environments and the effect of pollution on the environment. A4: smmerize surface soils of deserts. Understanding the nature of behaviour and it's relation to the nervous system.
b) Intellectual skills	B1: Compare between the a biotic and biotic components of the ecosystems B2: Analyze any animal as an example to illustrate the flow of nutrients and energy among its food chain. B3: Determine how he can correlate between any animal



	<p>and its environment according to its biome. B4: evaluate the hazards effect of pollutants on different organisms.</p>
c) Professional skills	<p>C1: Conduct any a biotic conditions of the ecosystem as limiting factors. C2: Perform the balance in ecosystem. C3: Explain the difficulties that control animal life in different biomes and the ways to avoid them.</p>
d) General skills	<p>D1: Communicate with each other for covering both written and oral tasks. D2: Exchange skills, relating to the ability to interact with other people and to engage in team working.</p>
4. course content	<p>- Introduction to ecology, meaning of ecosystem and its characteristics</p> <p>2- The structure of the ecosystem: - biotic and abiotic components - different limiting factors - feeding and nonfeeding relationships between living organisms</p> <p>3- Movement of energy in the ecosystem: - food chain - trophic levels - biomass</p> <p>4- Cycling of nutrients in the ecosystem: - different biogeochemical cycles</p> <p>5- Types of biomes: - Desert biomes - Aquatic biomes</p>



	<p>6- Principals of population ecology-Factors determine the abundance and distribution of organisms terrestrial biomes</p> <p>7- Temperature regulation in homoithermic and poikilothermic animals</p> <p>8- Behavioral control of body temperature-osmoregulation-osmoregulatory devices in different vertebrates-ways of terrestrial animals to overcome water loss</p> <p>9- Environmental pollution and its causes</p>
<p>5. Teaching and learning methods</p>	<p>5.1 Lectures and Seminars 5.2 Case Studies and Problems 5.3 Contact hours. 5.4 Essay, Course and Lab works 5.5 Field Trips</p>
<p>6. teaching and learning methods for students with special needs</p>	<p>-----</p>
<p>7. Student Assessment</p>	
<p>a) Procedures used:</p>	<p>7.1. Final-Term Examination to assess the student skill in presenting facts, applications, theories and calculations.</p> <p>7.2.Class activities (reports, discussions, practical...etc) to assess the student intellectual, professional and practical, and general and transferable skills.</p>
<p>b) Schedule:</p>	<p>Assessment 1: Practical Examination Week 14</p> <p>Assessment 2: Final-Term Examination Week16</p>



c) Weighing of Assessment:	Mid-Term Examination: (15)	10 %
	Final-Term Examination: (100)	66.6 %
	Practical Examination: (25)	16.8 %
	Semester Work: (10)	6.6 %
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Total	(150)	100%

8. List of Textbooks and References:

a) Course Notes	Lecture notes
b) Required Books (Textbooks)	<ul style="list-style-type: none">- Essentials of ecology, C. Townsend et al., 2004, 2nd edition.- Ecology: theories and applications, P.D. Stiling, 1999, 2nd edition.- Animal physiology: principals & adaptations, M.S. Gordon, 1977, 3rd edition
c) Recommended Books	Research Techniques in Animal Ecology: Controversies and Consequences, L. Boitani & T. Fuller (2000)
d) Periodicals, web sites,....,etc	- Journal of animal ecology

Course Instructor: Dr. Eman Hashem

Head of Department: Prof. Karoline Kamel Abdel Aziz

Date: -----/-----/-----